THE MARIN BEEK NEWS

Volume 5, Issue 10 December 2013

What You Missed

Our last meeting featured a talk by John Kefuss. John is a beekeeper from Toulouse, France who has raised bees and bred queens for many years without treatment of any kind, using methods that he has developed over the last several years. His presentation was entitled “Practical Varroa Resistance Selection for Beekeepers.”

Shortly after receiving his PhD in zoology from the J.W. Goethe Universitat, John moved to Toulouse, France where his new wife had grown up. He established a commercial apiary there and provided bees to Jacques Ducos de Lahitte of Toulouse, France and Wolfgang Ritter of Germany, to study the effects of miticides as they were being developed. Over the period from 1983 to 1985 his bees were subject to Folbex, Apitol (cymiazole hydrochloride), Perizin (coumaphos), Amitraz, Apistan (fluvalinate), and Bayvarol (flumethrin). He also was involved in several survivor tests that were conducted from 1993 to 2009 on various races of bees; including Uruguayan, Tunisian, European, and Russian Premorsky queens (imported through the USDA).

Several factors made John decide to forgo any chemical treatments for his apiary. The research that he had been involved in, the fact that the chemical treatments that he was using were giving him headaches, and the cost and time that chemical treatments required. He concluded that if he were to achieve a 10% survival rate his business could continue. He developed what he called “The Bond Test” (Live or let die). He stopped all chemical treatments forcing the bees to deal with the mites in whatever way they could. In his first year of using the Bond Test 2/3rds of his colonies died out, leaving him with three times as many as he had hoped for. He then propagated from the strongest of his surviving hives.

To accelerate the selection process, John then developed what he called the Accelerated Bond Test. The Accelerated Bond Test introduces mite-infested brood from a known infested hive into the colony being

See What You Missed on Page 2

What’s the Buzz

Our next meeting will be on Thursday December 5, 2013 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA. starting at 7:30 pm. The meeting will feature a talk by Dr. Sue Cobey, bee breeder and geneticist from Washington State University.

Sue Cobey has worked for decades to improve honey bee health through breeding. She managed the UC Davis Laidlaw bee lab and now, together with Dr. Steve Sheppard and a team of colleagues, she collects drone semen throughout Europe and deposits it in Washington State University's honey bee germplasm repository -- the first such sperm bank.

Dr. Cobey is passionate about honey bees and the need to protect them.

Dr. Cobey will speak on "The Benefits of Promiscuity,” honey bee mating behavior and genetic diversity -- how they figure into local small-scale queen breeding and her own international program for bee germplasm.

See What’s the Buzz on Page 3

Inside This Issue

tested. This requires the bees to deal with a higher mite load than they had previously experienced. The drawback to this approach is that long term resistance traits may not come into play.

John noted that precise definitions were required in order to determine the effectiveness of the program. The main definitions that he used were:

Resistance – The ability of a hive to keep Varroa Destructor at a relatively low level.

Tolerance – Presence of "traits" which allow survival and reproduction of an organism that has been compromised.

At the present time John's colonies are more resistant that earlier but still have some level of varroa infestation. His annual losses are about the same or lower than other beekeepers in his area.

Why have most beekeepers not adopted the Bond Test? There are high losses on a regular basis until tolerance-resistance appears. Most beekeepers are not willing to sustain the losses. The biggest problem is fear of losing everything. John then worked to find a technique that was acceptable to beekeepers. His main criteria for the test were that it had to be simple and it had to be cheap. He came up with what he calls "The Soft Bond Test". The Soft Bond Test allows the beekeeper to do the expensive and time consuming testing on a limited number of hives.

The Soft Bond Test:

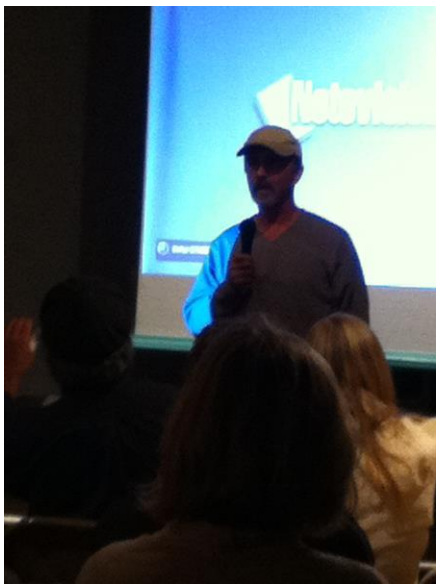
1. Test for production qualities on a large number of hives. This test would depend on what product you want to obtain from your apiary (i.e. honey, pollen propolis). In his example John started with 500 hives for production testing.
2. Run hygienic test on the top 20% from the production testing (The 100 top hives from the production test).
3. Perform varroa counts on the top 40% from the hygienic test (the 40 top hives from the hygienic test).
4. Run the Bond Test on the 50% of the hives from the varroa count with the lowest mite levels (the 20 hives with the lowest mite counts).
5. Use the best of the 20 to raise new queens, replacing the queens in your worst colonies first.

Run the Soft Bond Test again and discontinue treatment when varroa levels fall below 5%.

The advantages of the Soft Bond Test:

1. It employs natural mating.
2. No special equipment is needed.
3. It will increase economic performance, less chemicals and better hive production.
4. Hygienic behavior increases resistance to brood disease.
5. There will be limited hive losses.
6. Saves time and money spent on chemical treatments.
7. It is comforting because there are fewer risks.

John closed by advising that you utilize as many different breeding lines as possible to minimize in-breeding and to exchange genetic material with other beekeepers in case you happen to lose a breeder line.



Q&A session 20 minutes before the main speaker presentation.
Bring your bee related questions for discussion with the group.

Hive Tips

- Cold doesn't kill bees - moisture does. Make sure your hive tilts forward slightly so rain doesn't condense inside on your bottom board. Not sure the bees have enough ventilation? On a warm day, quickly check the inside of your top to see if it is wet or has mold. If so, consider giving them a little more ventilation by adding a shim, stick, or thin piece of wood between the top and inner cover.

- Approximately half of annual hive deaths occur between October and December. If you lose a colony, you will want to try to determine the cause of death. Most importantly, you want to be sure you did not lose the hive to American Foulbrood. Chances are slim that the cause is AFB, however because a couple of cases were reported in Marin last year you'll want to check to be sure. Good photographs and information are available online, including in this report:

  http://countryrubes.com/images/American_Foulbrood_AFB_pdf.pdf

- If AFB is a possibility, be sure to store the equipment in such a way that other bees cannot find it and rob it out and take the disease home with them. The club has several hand held black lights available for loan (check with David Peterson or Bonnie Morse) so you can inspect frames if scales are present.

- If you can rule AFB out, store your honey supers and built out combs in a manner that will not encourage wax moths, i.e.where light and airflow are abundant or in a freezer (or after freezing). If you stack outside, put spacers in between hive bodies to allow for airflow and store in a manner where mice will not have access - like on top of a screened bottom board with entrance reducer in. Do not allow too much space or mice might move in and make a nest and destroy your combs.

- By now, you should have removed your excess space and honey, leaving less space that the bees will have to heat this winter. If for some reason you still need to remove a hive body, do so in a manner that will cause the least heat to be lost in the hive. Pick a sunny day and work during the highest temperatures of the day (usually around 2-3pm). You can put an inner cover between the hive body to be removed and the rest of the hive. Alternatively, you can add a bee escape board for 48 hours, plans can be found here:

  http://www.dave-cushman.net/bee/clearerboards.html .

What's the Buzz continued from Page 1

Upcoming Meetings:

January 2, 2014

Rob Keller, local beekeeper and owner of Napa Valley Bee Company. Rob became interested in bees through comb-building pieces for his master's degree in fine art at UC Davis, where he was involved with the Laidlaw Bee Lab.

February 6, 2014

Dr. Marla Spivak, Distinguished Knight University Professor at the University of Minnesota. Marla is currently researching the benefits of propolis to the immune system of honey bees.

March 6, 2014

Dr. Eric Mussen, UC Extension Apiculturalist , beekeeper extraordinaire and longtime presenter in the annual speaker series. This will be his last presentation before he retires.

April 3, 2014

Dr. Maryann Frazier, Sr. Extension Associate in the Entomology Department at Penn State University. Dr. Frazier's research includes determining the effect on honey bee colonies of pesticide residues in pollen collected by foraging bees.

May 1, 2014

Dr. Gordon Frankie, Professor or Environmental Science, UC Berkeley. Dr. Frankie's research focuses on the behavioral ecology and community organization of solitary bee species in selected environments in California and Costa Rica.

June 5, 2014

Dr. Deborah Delaney, Assistant Professor at the University of Delaware. Dr. Delaney's research includes the genetic characterization of unmanaged bee colonies, savethehives.com feral bee project, and evolutionary biology of honey bees.

From the Librarian's Desk

Looking forward to seeing you at the Library table on Thursday! For those of you with materials on loan, please bring them back for others to enjoy and for a chance to win a prize.

As always, we have a selection of beekeeping magazines for you to read and discount subscription forms for the American Bee Journal. All club members are eligible to borrow materials from the Club Library.

Dues are Due

A reminder that annual dues for 2014 are now due. Dues are still just $20 per year. You can pay in person to David Peterson at the monthly meeting, or pay online at the club website http://marinbeekeepers.org, click on the "Become a Member" tab and follow the instructions to renew, or mail you check made payable to Marin Beekeepers to:

Marin Beekeepers
c/o Mary Nordquist
2072 Hatch Road
Novato, CA 94947

Members with new contact info please make sure to include your address, phone number and e-mail.

Membership includes free admission to all meetings, access to the Club's honey extracting equipment, and subscription to the Club's "MarinBuzz" listserv, which serves as an online discussion forum and a way to notify Club members of local bee swarm information.

Thanks a Lot

Usually the newsletter is created with a certain amount of anonymity but, since it is that time of year, I would like to acknowledge some of the people who help make the newsletter better. Thanks to the contributors including Bonnie Morse for Hive Tips, Marina Wright for keeping us informed about the library, and Dave Peterson for writing about goings on from time to time.

I also want to thank my wife, Karen Tysinger, who proofreads the newsletter every month.

Spring Beekeeping Classes

Bonnie Bee & Company winter beginning and intermediate class series (4 sessions each)

Beginning Beekeeping class series (9 hours, $99)
Classroom sessions will include basic bee information, seasonal cycles of a colony, equipment options, where to place your hive, how to get bees and tips on working with your equipment. When the weather warms up, there will be a field session so you can observe and practice working with your tools and bees.
Classroom sessions: Wed., Jan. 22nd – Wed. Feb 5th (3 classes), 6:30 – 8:30pm,
San Rafael Community Center, 618 B St., San Rafael
Field Day: Sat., Mar. 15th, 9:30am – 12:30pm (location TBD, tent. San Geronimo)
(Rain Day for Field Day: Sat. Mar 22, 9:30am – 12:30pm)
(Drop in for classroom sessions only = $25/each)
Additional information and registration in the 'Youth and Adult' classes through San Rafael Community Center

Intermediate Beekeeping class series (9 hours, $99)
You've got your colony through winter (or not) - now what? Class sessions will include how to clean up your equipment, expanding hive size for spring, swarm prevention- and if that fails, swarm capture, setting up bait hives for swarms, identification of common pest and diseases and management options for them. Topics will also include dealing with special situations: aggressive hives, queen failures, and laying workers. Field day will include information on how to split a colony, pest and disease ID, and swarm prevention.
Classroom sessions: Tues., Feb 11th – Tues. Feb 25th (3 sessions), 6:30 – 8:30pm,
San Rafael Community Center, 618 B St., San Rafael
Field Day: Sat., Mar. 15th, 1:30pm – 3:30pm (location TBD, tent. San Geronimo)
Rain Day for Field Day: Sat. Mar 22, 1:00pm – 3:00pm
(Drop in for classroom sessions only = $25/each)
Additional information and registration in the 'Youth and Adult' classes through San Rafael Community Center

Any member offering classes related to beekeeping who would like the information included in the Beek News please send the information directly to Rob Tysinger at rob@tysingerengineers.us.